

# Correspondence

## Group G Streptococcal Bacteremia With Presumed Endocarditis in a Patient With AIDS

TO THE EDITOR: Although still relatively uncommon, serious infections due to group G streptococci have been recognized with increased frequency.<sup>1,2</sup> Bacteremia and endocarditis have occurred almost exclusively in immunocompromised patients, including those with malignant tumors or other chronic diseases, alcoholism, drug addiction, and the elderly. We would like to bring to the attention of the readers of the journal a case of group G streptococcal bacteremia with presumed endocarditis in a patient with the acquired immunodeficiency syndrome (AIDS), an association that to our knowledge has not been reported previously.

A 37-year-old gay man with a history of intravenous drug abuse, Kaposi's sarcoma, and antibody to HIV was admitted to hospital for evaluation of fever and back pain for three days. He appeared to be chronically ill. His temperature was 39.3°C (102.7°F). Roth's spots were seen in both fundi oculi. He had poor dentition, with multiple caries and gingivitis. Heart sounds were normal, and no murmurs were heard. The lungs and abdomen were normal. He had no spinal tenderness. He had a swollen and tender left metacarpophalangeal joint, but no splinter hemorrhages, Osler's nodes, or Janeway's lesions, were seen. A purple lesion measuring 1 × 1 cm was present on the left knee. His hematocrit was 33.3% and the leukocyte count 7,100 per  $\mu$ l. A chest x-ray film was clear. His urine contained no erythrocytes.

The patient was presumed to have infective endocarditis and was treated empirically with nafcillin. Three sets of blood cultures were positive for group G streptococcus. The antibiotic therapy was changed to penicillin G. An echocardiogram showed normal valve function with no vegetations. The patient's fever abated, and his back pain disappeared over the next several days. The results of a repeat echocardiogram seven days after admission were unchanged. A bone scan was normal.

The most common source for group G streptococcal bacteremia is infection of the skin or soft tissue. In our patient, the inflamed gingivae may have served as the entry site, although infection due to intravenous drug abuse was also possible. Endocarditis is the most commonly reported clinical syndrome associated with group G streptococcal bacteremia, and vegetations on heart valves are often not detected by echocardiogram.<sup>1</sup> Our patient was presumed to have endocarditis, a diagnosis supported by the finding of Roth's spots in both eyes and arthritis of one metacarpophalangeal joint.

In addition to the better-known CD4 lymphocyte defects in AIDS, B-cell function is also impaired, and a diminished response to protein and polysaccharide vaccines has been documented.<sup>3</sup> Bacteremia due to *Streptococcus pneumoniae*, *Haemophilus influenzae*, and other streptococci has been shown to occur more frequently than predicted in AIDS patients.<sup>4,5</sup> This same immunologic dysfunction may have permitted the establishment of group G streptococcal bacteremia in our patient. The tendency of group G streptococci to infect immunocompromised patients makes it surprising that

severe infection has not been reported more frequently in AIDS patients.

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## Angiography and Polyarteritis Nodosa

TO THE EDITOR: In the March 1988 Radiologic Case by Ohmart and associates on the angiographic manifestations of polyarteritis nodosa,<sup>1</sup> the authors state that "involvement of the hepatic arteries only occurs in patients who are seropositive for the hepatitis B surface antigen." Travers and co-workers noted, however, that there was no correlation between the angiographic findings of microaneurysms in the hepatic circulation and the clinical finding of liver disease or the laboratory finding of hepatitis B surface antigen.<sup>2</sup> Although studying only a small number of patients, these authors also noted that the frequency of aneurysms in the hepatic circulation was higher than that found in the renal or mesenteric vascular beds. As noted by Ohmart and colleagues, there is no specific laboratory test for the diagnosis of polyarteritis nodosa. This includes the finding of microaneurysms on angiography, since other disorders can cause this, including bacterial endocarditis, systemic lupus erythematosus, Wegener's granulomatosis, and, in a report by Easterbrook,<sup>3</sup> tumor (in a young woman with poorly differentiated metastatic Wilms's tumor).

Although it has been suggested that the finding of aneurysms on angiography denotes a poorer prognosis for patients with polyarteritis nodosa,<sup>4</sup> this has not been confirmed by other studies. Thus, the angiographic diagnosis should certainly be supported by the clinical pattern as well as with tissue diagnosis wherever possible. When an angiographic diagnosis is attempted, studies in multiple vascular beds may be necessary to make the diagnosis, and the clinical or laboratory presence of specific visceral involvement apparently cannot be predicted by the angiographic findings.

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